

ENGINEERING FORUM TELECONFERENCE MINUTES

April 3, 2002

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TECHNICAL TOPIC

Jim Harrington (NYSDEC) updated the Engineering Forum (EF) on the Interstate Technology Regulatory Council's (ITRC) DNAPL Work Team activities. Because of the mounting interest from ITRC member states in addressing DNAPL contaminant problems, ITRC was asked for input on several sampling and analysis plans commissioned by the Interagency DNAPL Consortium (IDC) as part of its DNAPL demonstration project at Cape Canaveral Air Station in Florida. Initially formed in 1999 to review these documents, the ITRC DNAPL Work Team was expanded to address emerging issues in DNAPL characterization and remediation. The team is currently finalizing a document that provides a technical overview of several technologies that can be used for DNAPL source reduction and characterization, including dynamic underground stripping, electrical resistance heating (6-phase), thermal conducting wells, and chemical surfactant flushing. The document also discussed regulatory flexibility and guiding principles for source reduction. The following statements summarize the regulatory positions of many states, including those on the DNAPL Team:

- Investigators should make use of innovative DNAPL characterization tools and approaches, when appropriate and cost-effective. Due to the unique nature and challenges of locating DNAPLs, traditional investigative methods have not provided adequate understanding of DNAPL source zones and should be supplemented with more effective methods.
- Aggressive DNAPL mass reduction, in an effort to accelerate restoration and reduce life-cycle costs, should be encouraged through greater flexibility in enforcing technical and regulatory requirements for downgradient plume restoration, as long as human health and the environment are not impacted.
- Free-phase DNAPL that can be readily pumped or bailed from the subsurface within a reasonable time frame should be removed to the extent feasible.

- To the extent feasible, residual DNAPL should be removed or treated in situ to the point where it no longer constitutes a continuing source of groundwater contamination or the rate of natural attenuation exceeds the rate at which contaminants are entering the dissolved phase.
- ARAR waivers due to technical impracticability should not be granted for DNAPL sites without serious consideration of innovative and emerging source reduction technologies.
- Reduction of the DNAPL source, including removal or treatment of free-phase and residual DNAPL, should be considered an integral part of a presumptive response strategy for contaminated groundwater.

The ITRC document is being finalized and should be available on the web in a few weeks. The DNAPL team is also producing three more documents in the coming months that will provide more in-depth reviews of thermal, surfactant, and characterization technologies. The team plans to conduct Internet seminars on these technologies once the documents are finalized. More information on the ITRC is available on their website (www.itrcweb.org). Jim can be contacted at (518) 402-9755.

Dave Becker (USACE) mentioned that USACE is working on a guidance document for thermal remediation technologies. He will notify the EF when the guidance is completed.

Chet Janowski asked Jim if cone penetrometer technologies (CPTs) were discussed in the characterization technologies document. Jim said that a review of CPTs will be available later this year. Jim also suggested that Chet review the 2000 DNAPL overview document, which can be found at <http://www.itrcweb.org/DNAPL-1.pdf>. Gene Keeper (Region 6) suggested that Chet visit the Fugro CPT website at http://www.fugro.com/geotech_envir/Cone_penetration_techniques/mip.shtm. Vertek also manufactures CPT equipment (http://www.vertek.ara.com/products/probes_index.html). Camille Hueni (Region 6) also suggested contacting Wade Kress, a hydrologist at the USGS (tel: 318-251-9630, email: wkress@usgs.gov) who has been working on a low cost 2-D resistivity tool.

SPECIAL PROJECT UPDATES

Arsenic Fact Sheets

Chet Janowski (Region 1) sent Linda Fiedler (TIO) the final EF workgroup comments on the draft fact sheets. He expects the fact sheets to be ready in time for the spring TSP meeting.

Energy Audit

Kelly Madalinski (TIO) has been working on the SOW for the energy audit. The checklist developed by Mike Gill (Region 9 HSTL) and the subcommittee will be incorporated into Kathy Yager's pump and treat (P&T) optimization study. GeoTrans, Inc. will incorporate the checklists into three of their RSEs. In addition, an issue paper incorporating lessons learned will be drafted following the completion of the RSEs. The target date for completion of the RSEs and issue paper is September 30, 2002. The checklist should be completed by July, at which time Mike will distribute it to the EF for review. The SOW will also include a task to support the pursuit of a strategy for assessing energy savings approaches at waste sites.

Optimization Study

Kelly Madalinski noted that the exact dates for the new RSEs have not been determined. He will invite Kathy Yager to update the Forum about the status of past and future RSEs during a future call. For more information on this project, EF members can consult a report summarizing Phase 1 (the data collection phase) of the Nationwide Fund-lead Pump and Treat Optimization Project: "Groundwater Pump and Treat Systems: Summary of Selected Cost and Performance Information at Superfund-financed Sites", EPA 542-R-01-021, November 2001. This document is located at

<http://www.cluin.org> under remediation publications. Phase 1 included contacting a project liaison for each of the EPA Regions, identifying the Fund-lead P&T systems in each Region, collecting baseline information about each system through a web-based questionnaire or phone interview, and selecting a total of 20 Fund-lead systems to receive RSEs. Four of the 20 P&T systems (two in Region 4 and two in Region 5) were previously selected and evaluated as part of demonstration project completed in 2000.

Screening Data Collection Paper

Ed Mead (USACE) and Kaushalya Khanna (Region 5) are working on the water process parameters and corresponding analytical tables and sampling justifications for the screening data collection paper. Their goal is to complete a draft by the spring meeting.

Evergreen List/Future Issue Papers

Mark Granger (Region 2) announced the results of the evergreen list voting process. After tallying the votes, the highest ranked topics for future issue papers were:

- Storm-water control at remediation sites;
- Considerations in deciding to treat contaminated soils in situ;
- SVE and sister technologies implementation and optimization (including offgas treatment);
- Indoor air mitigation system design and engineering; and
- DNAPL treatment.

The co-chairs will be asking for volunteers to work on future issue papers at the spring meeting. If any EF members are interested in working on one of these topics, they should contact one of the co-chairs.

SPRING 2002 TSP MEETING PLANNING

The spring 2002 TSP meeting will be held at the Magnolia Hotel in Denver, Colorado, from June 3-6, 2002 (with Sunday the 2nd and Friday the 6th being travel days). The first plenary session will begin at 8:30 am on Monday morning. Following opening remarks by Region 8, there will be an indoor air workshop for the remainder of the day. The Federal Facilities Forum will lead a half-day perchlorate internet seminar on Tuesday morning, which all the forums will be expected to attend. Tuesday afternoon will be devoted to Forum business sessions. A mining seminar is scheduled for Wednesday morning, and a field trip to local mining sites will be held on Wednesday afternoon. The forums will meet with the ITRC and DOE groups on Thursday. The co-chair election will be held on Tuesday afternoon. If any EF members have suggestions for business session topics, they should send a note to one of the co-chairs. A baseball game outing is being organized for Monday night, and a Forum dinner will be held either Tuesday or Wednesday evening.

FALL 2002 TSP MEETING PLANNING

The Federal Facilities Forum (FFF) has the lead in planning the fall 2002 TSP Meeting. The FFF has not yet decided whether they will hold their meeting in conjunction with a UXO conference in Florida in September. The co-chairs will inform the Forum about the FFF's decision during the next teleconference. The fall meeting subcommittee will begin looking into technical topics in the coming months.

SPRING 2003 TSP MEETING PLANNING

The EF has the lead for planning the spring 2003 TSP meeting. DNAPL was mentioned as a possible topic that has TSP-wide appeal and implications. The location for this meeting has yet to be discussed in detail, but the co-chairs mentioned Seattle as a possibility.

MEMBERSHIP & CO-CHAIR ISSUES

Co-Chair Election

Forum members are reminded to submit nominations for the new co-chair to the present co-chairs. Self nominations are welcomed. The EF will vote for a replacement for Camille Hueni (Region 6) at the spring 2002 meeting.

New Members Needed

EF Members from Regions with fewer than three representatives should be on the lookout for new members. If they would like to nominate someone, they should contact one of the co-chairs.

Attendees

Sharon Hayes, Region 1
Chet Janowski, Region 1
Mark Granger, Region 2
Linda Kern, Region 5
Kaushalya Khanna, Region 5
Bernie Schorle, Region 5
Camille Hueni, Region 6
Gene Keepper, Region 6
Steve Kinser, Region 7
Fran Costanzi, Region 8
Nancy Morlock, Region 8
Bill Rothenmeyer, Region 8
Harry Ball, Region 9
Mike Gill, Region 9 (HSTL)
Neil Thompson, Region 10
Kelly Madalinski, TIO
Ken Brown, NERL/Las Vegas

JoAnn Camacho, ERT/Edison
Dave Reisman, NRMRL/Cinc.
Sam Bass, USACE
Dave Becker, USACE
Dave Jaros, USACE
Ed Mead, USACE
Johnette Shockley, USACE
Jim Harrington, NYSDEC
Keith Arnold, EMS, Inc.